

## ABSTRACT

The element management system ("EMS") of the present invention addresses the need for effective and efficient management of heterogeneous telecommunications networks that include network elements of different types, such as radios and fiber optic devices, made by different manufacturers. This EMS provides a core set of element-independent network management messages that support basic network management functions, such as fault and performance monitoring and configuration management. Element-independent messages to an individual network element are mapped to an element-dependent message for that network element; messages from individual network elements are correspondingly mapped into the core set of element-independent messages. Management applications and user interfaces in the EMS thus send and receive network management information using the core set of messages, in the common protocol of those messages. The EMS of the present invention thus supports rapid and low-cost integration of additional network elements of different types and different manufacturers, additional management functionality and additional and modified telecommunications services. The present invention also provides a method for developing the core set of element-independent network management messages for basic telecommunications management functions.